

CLAIMS

We claim:

1. A method for designing an integrated circuit comprising:
 - partitioning a design into a plurality of function blocks;
 - designing a first one of said plurality of function blocks employing Verilog to produce a first block design;
 - 5 designing a second one of said plurality of function blocks employing SPICE to produce a second block design;
 - converting said first block design to SPICE to produce a converted first block design;
 - simulating operation of said converted first block design and said second block design; and
 - 10 translating said converted first block design to Verilog to produce a translated first block design.
2. The method of claim 1 further comprising:
 - comparing said translated first block design with said first block design.
3. The method of claim 1 wherein said step of translating further comprises:
 - changing ".SUBCKT" instances to "module".
4. The method of claim 1 wherein said step of translating further comprises:
 - changing ".ENDS" statements to "endmodule".
5. The method of claim 1 wherein said step of translating further comprises:
 - deleting a discrete circuit element description.
6. The method of claim 1 wherein said step of translating further comprises:
 - defining a wire name corresponding to a SPICE node name.

7. The method of claim 1 wherein said step of translating further comprises:
identifying a SPICE output signal name and defining a Verilog output
signal using said output signal name.
8. The method of claim 1 wherein said step of translating further comprises:
identifying a SUBCKT name;
9. The method of claim 8 wherein said step of translating further comprises:
employing said SUBCKT name as a module name;
10. A method for translating a SPICE netlist to Verilog comprising:
opening a SPICE file;
translating ".SUBCKT" instantiations to "module";
translating ".ENDS" statements to "endmodule";
translating SPICE circuit elements to Verilog format; and
removing discrete circuit elements.
11. The method of claim 10 further comprising:
saving the file.
12. The method of claim 10 wherein said step of translating further comprises:
identifying a SPICE input signal name and defining a Verilog wire
employing said input signal name.
13. The method of claim 10 wherein said step of translating further comprises:
identifying an input signal name through a naming convention.
14. The method of claim 10 wherein said step of translating further comprises:
identifying an input signal name through a predefined delimiter.

15. The method of claim 10 further comprising:

identifying a SUBCKT name.

16. The method of claim 15 wherein said step of translating further comprises:

employing said SUBCKT name as a module name.

17. An integrated circuit produced by the steps of:

partitioning a design into a plurality of function blocks;

designing a first one of said plurality of function blocks employing

Verilog to produce a first block design;

5 designing a second one of said plurality of function blocks employing

SPICE to produce a second block design;

converting said first block design to SPICE to produce a converted first
block design;

10 simulating operation of said converted first block design and said second
block design; and

translating said converted first block design to Verilog to produce a
translated first block design.

18. The integrated circuit of claim 17 further comprising:

comparing said translated first block design with said first block design.

19. The integrated circuit of claim 17 wherein said step of translating further
comprises:

changing ".SUBCKT" instances to "module".

20. The integrated circuit of claim 17 wherein said step of translating further
comprises:

changing ".ENDS" statements to "endmodule".

21. The integrated circuit of claim 17 wherein said step of translating further comprises:
 - deleting a discrete circuit element description.
22. The integrated circuit of claim 17 wherein said step of translating further comprises:
 - defining a wire name corresponding to a SPICE node name.
23. The integrated circuit of claim 17 wherein said step of translating further comprises:
 - identifying a SPICE output signal name and defining a Verilog output signal using said output signal name.
24. The integrated circuit of claim 17 wherein said step of translating further comprises:
 - identifying a SUBCKT name.
25. The integrated circuit of claim 24 wherein said step of translating further comprises:
 - employing said SUBCKT name as a module name.